Activities and reflection for influencing beliefs about learning with smartphones

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Abstract. English education in Japan faces numerous challenges, including an English as a Foreign Language (EFL) context, mandatory English classes, and an exam-oriented education system. Computer technology and the almost universal possession of smartphones can ease the burden of learning, but only if these tools are used effectively. Japanese university students report having very low computer skills and their smartphones are seen as tools for maintaining social contacts and as gaming devices. Smartphones then become a distraction, keeping students from achieving academic success. What is unclear is whether students are unaware of, or unwilling to use, the educational and productivity functions of their smartphones. This project aimed to examine beliefs about learning with smartphones and what changes in beliefs and behavior occur through the introduction of smartphone apps and online applications utilizing task-based activities requiring the educational and productivity aspects of smartphones. Pre and post intervention surveys were administered measuring beliefs about learning and smartphone usage. Four first-year university classes (*N*=146) enrolled in a mandatory listening and speaking course participated in this study. This presentation will report the findings of the survey on learning and what changes were observed. The design of the activities and problems that occurred during the term will also be discussed.

Keywords: mobile learning, TBLT, learner beliefs, action research.

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1. Introduction

Technology has now become an ever-present part of our lives and mobile technology has played a very important part in the lives of Japanese youth from the development of the pager to the keitai (cell phone) to now, the smartphone (Boase & Kobayashi, 2008). The presence of these devices in the hands of students can lead one to believe that they are proficient and productive in their use. This is not necessarily the case with students at a mid level Japanese technical university who report poor computer literacy and confidence in their skills with Information and Computer Technology (ICT). Recently it is becoming evident that students are proficient with a limited number of applications (apps), usually social networking, or entertainment in nature, and are not the digital wizards we would expect (Bicen & Kocakoyun, 2013; Margaryan, Littlejohn, & Vojt, 2011; Thompson, 2013; Watanabe, 2012).

In the case of Japanese university students, their end goal of attaining high scores on English tests is influenced by a number of factors. Policy makers propose policy statements setting goals of a society that can use English to communicate. Parents are concerned with their children getting into a good university, which means passing high stakes entrance exams. Secondary school teachers are under pressure to prepare students for these exams and to get through an overwhelming syllabus. Add to this a lack of support for teacher development and training, and the result is a grammar translation driven curriculum with little time for communicative language learning.

Technology plays a small role in Japanese high schools, with little time given to using computers for learning. Mobile devices are used primarily for social or entertainment purposes with some studies reporting that students prefer not to use their mobile devices for educational purposes (Lockley & Promnitz-Hayashi, 2012; Takahashi, 2008) Observations suggest students approach the high stakes testing environment of high school by trying to remember enough to get past the next test. Their focus is on remembering for reproduction as opposed to learning for understanding.

This study aimed to investigate students' beliefs about learning and introduced tasks that exposed learners to the productive aspects of smartphones and computers. The goal was to increase student productivity and academic performance by having students see the ways that their smartphones can improve their university life. The first year of university is a prime point to introduce new ideas, as this is a transitional point for these students.

2. Method

2.1. Participants

Participants were 1st year university students at a mid-level technical university in Japan. They were enrolled in a mandatory English listening and speaking course. The participants were a sample of convenience comprised of four classes instructed by the researcher (*N*=146). English placement is based on the Test of English for International Communication (TOEIC) Bridge test administered by ETS. The scores put these students in the lower end A1 band of the Common European Framework of Reference (CEFR).

2.2. Method

This study is exploratory in nature and was designed following a mixed method approach utilizing survey data that collected both qualitative and quantitative data. The design involved a survey at the beginning of the course setting a baseline for beliefs about learning and technology use. Smartphone apps and multiplatform online applications were introduced using an action research approach. Homework tasks were assigned that required the use of this technology. The tasks were accompanied by a reflection component. At the end of the term a modified version of the survey was administered.

2.3. Survey

The survey was constructed by examining previous surveys involving language-learning beliefs and focused on strategies and metacognitive awareness. Reports on student interaction with homework and technology use, namely computers and smartphones, were also investigated. Items were selected to confirm previous assumptions and observations of student technology use. The final survey included open-ended questions about how students thought their learning or smartphone use had changed since the start of the term.

2.4. Tasks

An action research model was selected for the intervention. The problem being investigated was how to introduce students to the productive and educational aspects of technology. The reasoning is that lack of motivation and academic performance may be due to a lack of awareness of effective study strategies and how to use the tools available to them. Knowledge and practice with the tools available to them

may improve their chances of success. The first step was to introduce productivity and educational aspects of smartphones through tasks that were relevant to their university life.

Task types were designed to increase productive use of technology. Task performance was examined and design elements were adjusted in subsequent tasks. The task types involved setting reminders, tracking their time, using the voice recorder, and using Google apps. Different approaches were selected and the outcomes evaluated. These approaches involved giving detailed step-by-step instructions on how to do a task, to a less guided approach where the task is assigned and options for how to complete it are provided but allowing for student independence with how they want to proceed.

3. Discussion

3.1. Initial reports

Students' reports regarding learning beliefs were generally positive. However, the amount of time they reported spending on homework or studying in high school was quite low. Time spent using smartphones was quite high with video, text, music and game apps being the most frequently used apps. Educational or productivity apps were not used at all.

3.2. Final comments

The comments regarding how learning has changed showed that students felt that they increased their studying and were more aware of how they were using their time. Students were unaware of how they could use their phones for academic purposes but now were using them to organize their university time, access dictionaries and record speaking assignments. While many comments reported some kind of insight or improvement, some students did report that there was no change at all.

The results suggest that some students are responsive to the introduction of applications that will assist in their learning. The main problem was trying to reach the students who do not attempt the activities, or do not attend class. Students who are challenged academically may be so due to lack of instruction, not lack of motivation. Some students reported feeling stress at having to figure out how to use the apps by themselves, this could be attributed to the teacher-centered approach they are accustomed to.

3.3. Problems

The first problem was the issue of attrition. Each class contained between 5-10 students who stopped attending classes. Another issue was of the students that did attend, while homework assignments were mandatory, some classes had a number of students who did not attempt or complete the assignments. The total number of responses to the final survey totaled 37, approximately 25% of the initial number of responses.

4. Conclusions

Smartphones take up a large part of university students' time. Unfortunately, this time is mainly social or entertainment related. The use of smartphones for productivity is non-existent. While students have a generally positive attitude towards learning, they seem to lack the knowledge and skills to pursue it effectively. Introducing apps for education or productivity through tasks can have a positive effect on students' academic endeavors. While students felt challenged and stressed, they also were able to notice how knowledge of the productive aspects of their smartphones improved their studies. Integrating new apps into English classes through tasks may be a way to introduce students to the more productive aspects of their technology and lead to a change in their smartphone use for the better.

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